I.T. TIMES

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Wireless Fills In

New Technology Is Shaping Community Networks

by Vicki Suter, I.T. Distributed Computing Analysis & Support

Thanks to advances in wireless technology, truly mobile computing is just around the corner for many users. Simply speaking, some laptop computer users are enjoying the same connectivity now enjoyed by those who use cellular telephones, and this convenience may come into the reach of many more in the next year or so.

In the traditional computing environment, computers are networked with either direct wire or through the telephone lines with modems. Information can be transmitted only between computers physically connected to the network.

As its name implies, wireless networking will allow users to transmit information through mediums that do not require physical connections. So, theoretically speaking, you could send e-mail from a chair lift in a snowstorm or from a sandy beach on a tropical island.

Existing wireless communications include radio and television broadcasting, cellular telephony, microwave, and satellite services. Wireless technologies have not yet evolved sufficiently enough to serve as replacements to traditional wire-based computer networks. Nonetheless, wireless technologies do provide promising — yet expensive — solutions in certain niches or gaps not well-served by wire.

With the development of wireless applications, the technology

Continued on Page 4

Vicki Suter of Information Technology provided an overview of the current networking environment at the "Yolo Smart Region Telecommunications Summit. "

Network Will Be Built on Partnerships

by Virgil Palmer

Community leaders and campus representatives recently agreed that collaboration is the key to building a "smart" community. That was just one of the conclusions reached at the "Yolo Smart Region Telecommunications Summit" recently held on campus in the Beuhler Alumni/Visitor Center.

Representatives from both the public and private sectors attended the Feb. 27 event, which was organized by Vicki Suter and Joan Gargano of Information Technology and co-hosted by the Davis Community Network, a local nonprofit organization.

Attending were representatives from UC Davis, Davis Unified School District, Yolo County, the City of Davis, the City of Woodland, the Davis Chamber of Commerce, State Department of Education, Davis Downtown Business

Continued on Page 2

Odyssey '96 Will Showcase Creative Uses of Technology

Everything from computer-assisted learning programs to wireless communications will be demonstrated at Odyssey '96, an all-day technology showcase scheduled for Thursday, May 23, in Freeborn Hall.

Sponsored by the Network 21 Budget & Policy Oversight Committee, the General Library, and Information Technology, Odyssey '96 will give members of the campus community an opportunity to demonstrate and discuss creative uses of information technologies. Like the technologies to be showcased, the event is designed to be an interactive medium.

Proposals are being accepted in six tracks:

- Expanding the Classroom — Electronic Communication and Coursework on Computer;
- Collaborating Across the Network;
- Turning Data into Information;
- Online Images — Building Digital Libraries;
- Technology Applied to Research — Today & Tomorrow;
- The Mobile Worker.

In addition to the technology showcase, presentations will be scheduled throughout the week by technology leaders in higher education. Stuart Lynn, the recently appointed Associate Vice President, Information Resources and Communications for the UC Office of the President, will give a talk entitled "Using Technology to Build an Interactive University."

Gerry Bernbom, Assistant Director and Senior I.T. Architect for the Office of Information Technologies at the University of Indiana, will discuss "Data as an Institutional Resource."

Coming from the University of North Carolina at Chapel Hill is John L. Oberlin, Director of Finance & Planning for the Office of Information Technology. He will discuss issues related to technology financing.

Richard West, Vice Chancellor Business and Finance , the California State University, will speak on the "Changing Costs of Information in the Networked World."

On Wednesday, May 22, The "Office of the Future" will be the topic of discussion at the Center for Advanced Information Technology (CAIT). Presentations will focus on everything from ergonomic office design to wireless communication applications.

For more information on Odyssey '96 please send e-mail to odyssey@ucdavis.edu.

Site License News Can Come to You

To receive regular e-mail updates about software site license opportunities and volume purchase discounts, you may subscribe to the "site license" listserv.

Send e-mail to listserv@ucdavis.edu and leave the subject line blank. In the body of the message type: Subscribe site-licenses <your firstname> <your lastname>.

Example:

Subscribe site-licenses John Doe

Oracle on the Web

For information about Oracle software opportunities available to campus users, please visit the UC Davis Oracle Web site at

http://oracle.ucdavis.edu

The administrative/media fee for distribution of Oracle products is charged on a per department basis. Questions? Send e-mail to oracle-sla@ucdavis.edu.

Meet at the CAIT

Just a reminder. The conference table in the Center for Advanced Information Technology (CAIT) is an ideal place for small class meetings or group discussions. The horseshoe-shaped conference table is equipped with terminals and projecting equipment. Participants can access online information during the discussion and project information from individual screens for viewing by the entire group. The CAIT is located on the first floor of Shields Library. Call **752-5711** or send e-mail to **advancedit@ucdavis.edu**

NetDay '96

UC Davis staff were among the many volunteers participating in NetDay '96 on Saturday, March 9. Marilyn Sharrow, University Librarian, and Carole A. Barone hosted an open house at the CAIT to demonstrate Internet tools for K-12 education and to thank volunteers for participating in the event. Look for a follow-up in the April I.T. Times. More information is on the Web at

http://www.netday96.com

Quotables

"The Web as we know it today is dead. . . because it's going to mutate into something else very quickly and be unrecognizable within 12 months..."

— Paul Saffo
— Futurist

Courtesy of Edupage

Inside I.T.

Watching Over Mothra

Dan Dorough

Remember Mothra? No, not the giant moth-creature from the B movie. Mothra—the access word you were asked to type in when you opened your campus computer account. Dan Dorough of I.T.'s Distributed Computing Analysis and Support (DCAS) is one of the two keepers of Mothra, along with Larry Johnson, also of DCAS. Mothra — I.T.'s account management system and online directory—is a database containing all of the campus "easy-access" computer accounts, the UCD MailID central electronic mail addresses, and the "Whois" electronic directory.

Dorough and Johnson are the system architects for Mothra. Dorough's responsibility is for the "front end," which entails developing applications and tools to enable I.T. staff and customers campuswide to use the database, while Johnson implements the "back end," getting information into the database.

Dorough wears another hat as well as the system architect of the Aspiga database, which is the campus hostname database for the UCDNet network. In that role, Dorough serves as both the system architect, having built all the applications and set up all the processes, and as the hostname clerk in order to keep on top of what information people need to make the tools as easy to use as possible. He also wrote the system database for the Davis Community Network, which maintains all the DCN customer records and computer accounts.

And he's responsible for peering into the future, investigating future technologies — like client/server computing — for possible use on campus.

Now, ask him how Mothra got its name and he'll confess—it really is named after the giant moth-creature from the B movie. One reason: it swoops down and gathers up information.

Site License Coordinator Works to Keep Campus Informed

Leigh Ann Giles

As Site License Coordinator for Information Technology, Leigh Ann Giles wants to make sure the entire campus community has access to information about what site licensed software packages are available to campus users. As she puts it, her job is to work with campus departments to identify software needs and pinpoint potential site license opportunities.

"Campus departments are realizing the many benefits of agreement licenses, including — but not limited to — the cost savings," says Giles, who assumed site license responsibilities in January.

At a department's request, Giles will investigate new licensing opportunities. She also stays on top of potential opportunities by participating in monthly systemwide conference calls where she discusses pending UC agreements with other site license administrators.

"Claris, Lotus, and Adobe software agreements are being negotiated," says Giles. "I will distribute the details to campus as soon as an agreement is reached."

More information about site license agreements and volume discounts available to campus users is found on the World Wide Web at http://eclipse.ucdavis.edu/slc.html

Or if you have specific questions about software site licenses, send e-mail to itslc@ucdavis.edu

Software Support for Workstation Users

If you use a SUN, DEC, or SGI workstation, this Vendor Software Library (VSL) news is for you.

- Solaris, 2.5, the newest version of the Solaris Operating System is now available.
- Version 7 of the VMS Operating System for the DEC Alpha is available.
- New SGI CD-ROMS include Open Inventor 2.1, IRIZ6.1 (64 bit processors only), and the Support Advantage disks.
- The VSL is establishing new security procedures, and access to the Sun compiler licensing servers is now restricted to VSL members.
- The UCD Oracle license is now part of the VSL program, and departments may purchase a year of access to all Oracle software via the CD-ROM jukebox. FTP and CD duplications services still will be available for individual software titles.

If you have questions about the VSL program, send e-mail to vsl@ucdavis.edu.

Collaboration Is Key to Community Network

From Page 1

Association, local businesses and Davis Community Television.

Calling themselves the Yolo County Regional Net, the group agreed to hold regular meetings to discuss their experiences with computer technologies — to talk about their goals and the obstacles encountered trying to meet these goals.

"Smart" refers to a community that changes the way it works by using information technology, and by making that technology available and user-friendly to its residents.

As a result of the summit, the following action items were slated for further collaboration:

- Map the existing network infrastructure in the region;
- Map the training and technical resources and develop methods for sharing and leveraging existing resources;
- Establish public kiosks throughout the Yolo County region;
- Provide a regional training and demonstration center to use for training and demonstrations to educate, inspire and persuade;
- Provide a regional help desk;
- Recruit private sector involvement immediately;
- Present a series of follow-up meetings and seminars to attract additional regional agencies who wish to join this collaborative effort.

One such event to further understanding of the current networking environment is the Odyssey '96 technology showcase, scheduled for May 23.

Also in store are future meetings promoting partnerships between the public and private sectors.

For further information on the work of the Yolo County Regional Net, look on the World Wide Web at http://rohan.sdsu.edu/dept/intlcomm/smart.html

At Home on the Web

Student Housing

http://www.housing.ucdavis.edu/

This site contains information for prospective and current residents, undergraduate and graduate, living in the residence halls , student family housing apartments, and cooperative living groups. Summer Housing opportunities and Conference Services are described as well. Important dates, copies of residence hall contract and student family housing leases, quarterly and annual rates, and meal plan descriptions are provided. Current links to other pages include: Campus Information, Campus Recreation, Parking Services, UCD Bookstore, City of Davis, Child Care liaison, and a number of other Student Affairs departments. There is a faculty and staff directory in the form of a searchable index. E-mail inquiries to the Student Housing Office can be made from the page as well.

Medieval Studies

http://pubweb.ucdavis.edu/Documents/MST/list.html

This page contains links to a tremendous range of resources related to the Medieval period: the Medieval Academy Home Page, the ARTFL Project French Literature, Medieval History Resources Home Page, the Bodleian Library, the Labyrinth Medieval Culture Home Page, and many others. You'll also find links to electronic versions of various medieval texts, such as Boethius' The Consolation of Philosophy, Boccaccio's Decameron, and the Magna Carta. As a bonus, the creators of this page have added links to a number of classical texts, including many of Aristotle's works.

Community and International Health

http://www-oem.ucdavis.edu/www/oeme.html

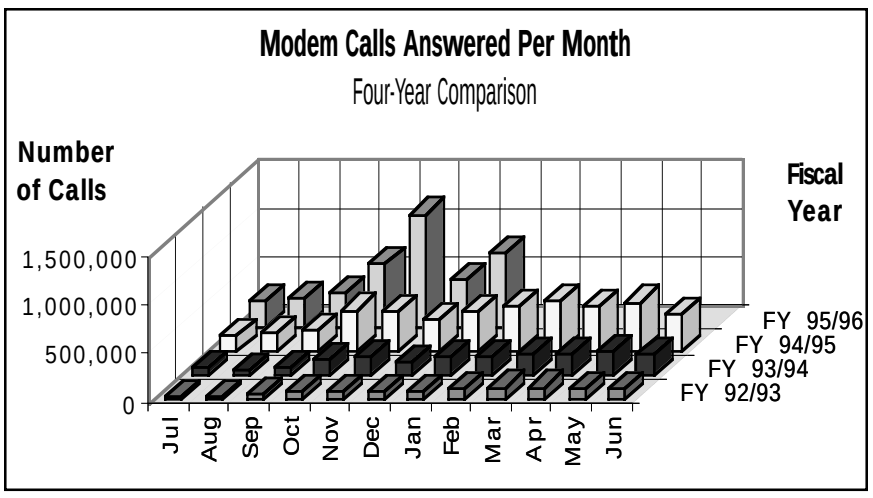
Just about everything you want to know about the department of Community and International Health is found on this page, which includes a department phone directory, monthly calendars, a map of the Davis region, and the department's location. Faculty listings are laced with information about qualifications, research interests, memberships, past positions, honors, awards, and publications. You'll also find a link to the Center for Aging and Health, newsletters, and announcements.

California Aggie Marching Band

http://seclab.cs.ucdavs.edu/~wetmore/camb/

If your spirit needs a boost, come visit this site. You'll find photographs of the Aggie band, a performance schedule, newsletter, and even some history about the band.

Do you have a home page you would like published? Send your submissions to us at **itpubs@ucdavis.edu**



Graph by Diana Foster

More than 1 million callers gained network access through the campus modem pool in November 1995.

Tired of the Busy Tone? Modem Users Will Have New Options

After reviewing the statistics, campus leaders have asked Information Technology to "freeze" the modem pool at 500 modems and solicit bids from private vendors to provide campus users with an alternative service.

The recommendation was made by the Joint Campus Committee on Information Technology (JCCIT) and the Committee on Academic Planning and Budget Review (CAPBR).

"This is a positive step forward," says Carole A. Barone, Associate Vice Chancellor for Information Technology. "Although we will continue to provide baseline service through the existing modem pool, users will not be restricted to existing campus resources," she says. "By contracting with a private vendor we can continue to offer modem access as a campus service and, at the same time, give those who want it guaranteed access to online resources."

The vendor contract negotiated by Information Technology will provide service at rates substantially lower than those offered individual customers.

Over the past four years, calls to the modem pool have virtually doubled on an annual basis. Even though the modem pool has more than quadrupled in size, callers still complain of busy signals. As the report to JCCIT and CAPBR showed, Information Technology has neither the financial nor the physical resources to support the growing demand for modem service. Although Information Technology will maintain the existing modem pool, it will not finance new upgrades.

Distance Educators Create Web Site

Nan Lorenzen,
Division of Education

A spin-off group of UC Davis educators from the December conference on Distance Learning and Intercampus Programs has agreed to create a World Wide Web site to serve as a "virtual resource and research center" for technology-based education.

Calling themselves the Distance Learning and Intercampus Programs Interest Group, the educators, who met in February, began to implement recommendations from the previous conference. The February meeting was hosted hosted by Meera Blattner, professor in Applied Science, who co-convened the Distance Learning conference in December.

Harry Matthews, a professor in Biological Chemistry, orchestrated development of the Web site (http://moby.ucdavis.edu/Distance-ed), which lists people with relevant knowledge or experience with distance learning to share with others in the UC System. Having decided to include technology-based education through interactive computer programs in their scope, the participants agreed to put examples of courses taught via computers on the site.

UC Davis faculty members currently developing courses offered on computers include Matthews; Richard Falk, a professor in Plant Biology; and Geoffrey Wandesforde-Smith, an associate professor in Political Science, to name a few.

Other items discussed include the following:

- Providing online access to information for distance learning material similar to that at the University of North Carolina;
- Creating a distance learning education center offering assistance in both pedagogical techniques and technology;
- Importing and exporting classes from other campuses;
- Encouraging educators outside of UC Davis to make suggestions;
- Compiling and circulating studies and evaluations of distance learning.

Another meeting is being planned for March, to be hosted by Richard Walters, professor in Computer Science, who will demonstrate the Remote Teaching Assistant system.

Participating in the February meeting were Blattner; Falk; Matthews; Walters; Evelyn Babey, registrar; Peter Dale of the Provost's Office; Claire Daughtry, College of Engineering; Kenneth Firestein, library teaching coordinator; Barbara Sommer, lecturer in Psychology; Maureen McMahon, assistant professor, Division of Education; Keith Prior, academic coordinator, Division of Education; and Michael Reid, associate dean in Environmental and Resource Sciences and Policy.

PROJECT UPDATE

NetWork 21

Alternates Opt In

"Alternates" are those buildings that were originally designated as part of the Network 21 project but, due to the $23 million cap placed on the project last year, were redesignated as "additive alternates." Each affected department was given the option of placing these facilities back in the project via departmental funding. The additive alternate contract approach allowed departments to see the actual costs prior to making a decision.

The deadline to notify Digital Equipment Corporation, the firm hired to install the fiber optic backbone of Network 21, was Feb. 15. Beyond this deadline, inclusion may still be possible, but the cost provided to the primary contacts for inclusion of each of these areas will not be guaranteed. To date, nine of the 15 buildings designated as alternates to the Network 21 project will be included. Those buildings are the Dairy Barn; Primate Center Buildings: Administration Building, Animal Lab, Colony Office, and Research Office, TB 141, TB 184, TB 196; and the La Rue Housing Complex.

Boring Technology Minimizes Disturbances

Don't let the name of this technology deceive you...The boring technology being used on Network 21 is creating some exciting opportunities. Hudson & Poncetta, the subcontractor hired by Digital Equipment Company to forge the conduits that will house the fiber optic cable, is using directional boring to do the job.

Boring, a technology that has been utilized more and more frequently in the last eight to 10 years, minimizes disturbance to ground surface by using electronic signals to guide an underground metal rod. With only a three-person crew and minimal equipment, the direction of the boring head is controlled from above ground to create conduits beneath roads and landscapes with minimal disturbance. The technique saves money by reducing environmental impact and, because of the absence of an open trench, provides a higher level of safety for the public.

Gearing Up! Carole A. Barone, Associate Vice Chancellor for Information Technology, recently met with Network 21 project leaders to discuss installation of the fiber optic cable that will form the backbone for the high-speed campus network. She is joined by Network 21 construction manager Jim Burns (right) and Jim Lehto of Digital Equipment Corporation.

Photo by Markus Pfitzner

NAM Modification Begins

With the help of Ever-Green Communications Services, Inc., a firm with an ongoing contract to assist with voice and data installations on campus, NAM (Network Access Module) modification will begin next month. The work consists of modifying approximately 3,800 NAMs to conform to Network 21 10BASE-T standards. Work is being scheduled in approximately 150 campus buildings and Network 21 primary contacts will be notified as to when modification will take place.

— *Aviva Luria*

You may receive Network 21 News Briefs electronically by subscribing to the net21info listserv. To subscribe, please send e-mail to listproc@ucdavis.edu Leave the subject line blank, and in the body of the message type subscribe net21info <firstname> and <lastname>.

I.T. CALENDAR — MARCH 1996

S	M	T	W	T	F	S
					1 Adobe Acrobat	2
3	4 Netscape	5 Excel	6	7 Microsoft Word	8 Melvyl/ Medline	9
10	11	12 Brown Bag	13 Voice Mail	14 Melvyl/ Medline	15 Pro-Cite	16
17	18	19 Voice Mail	20 Advanced Excel	21 Advanced Wordperfect	22	23
24	25	26 Image Formats	27 FileMaker Pro	28	29	30

Come with Your Questions — and a Lunch

If you'd like to learn more about how to incorporate information technology into your professional endeavors, the Brown Bag Series is for you. Sponsored by Information Technology and Staff Development & Professional Services, Brown Bag presentations are scheduled throughout the year during the noon hour. All members of the campus community are welcome to attend these informal presentations. Topics range from using e-mail to understanding Internet etiquette. Upcoming Brown Bags are listed below.

Tuesday, March 12 • MU II
Choosing Your Next Personal Computer
This interactive presentation will show you how to determine the computer that will best fit your needs. The advantages of different platforms as well as machine specifications will be discussed.

Tuesday, March 26 • MU II
Understanding Image Formats
The acronyms themselves can be overwhelming — GIF, TIF, JPG, EPS, PCX, and the list goes on. Highly recommended to anyone who works with computer graphics, this presentation will cover typical uses of the different formats and provide instructions on how to convert one format to another.

Tuesday, April 9 • MU II
Network 21 Update
With construction underway on the new high-speed fiber optic network that will interconnect over 200 buildings on campus, people are asking lots of questions about Network 21. This is your chance to have your questions answered by Network 21 project leaders, who will give a project status report.

To suggest topics for consideration send e-mail to ***itpubs@ucdavis.edu.***

All presentations begin at Noon.

Editor's Note: If you wish to enroll in a class offered by Staff Development & Professional Services, you must complete an Application for Enrollment. Applications appear on Page 95 of the Staff Development Catalog. To request an application, call 752-1766.

March

1 Introduction to Adobe Acrobat: Staff Development, 1:30 - 4:30 p.m., 40 Mrak; 752-1766.

4 Introduction to the Internet Using Netscape (two-part class offered March 4 & 6): Staff Development, 1:30 - 4:30 p.m., 40 Mrak; 752-1766.

5 Working With Excel Charts: Staff Development, 1:30 - 4:30 p.m., 40 Mrak; 752-1766.

7 Advanced Microsoft Word Working Session: Staff Development, 1 - 5 p.m., 40 Mrak; 752-1766.

8 Melvyl/Medline: Library Services, 9 a.m. - 11 a.m., Carlson Health Sciences Library; register by calling 752-6204 or by e-mail: jawelsh@ucdavis.edu.

12 Choosing Your Next Personal Computer: Information Technology and Staff Development, 12 noon -1 p.m., MU II.

Intermediate FileMaker Pro (two-part class offered Mar. 12 & 14): Staff Development, 1 - 5 p.m., 40 Mrak; 752-1766.

Intermediate PageMaker (two-part class offered Mar. 12 & 14): Staff Development, 8:30 - 11:30 a.m., 40 Mrak; 752-1766.

Internet/Medical: Library Services, 11 a.m. - 1 p.m., Carlson Health Sciences Library; register by calling 752-6204 or by e-mail: jawelsh@ucdavis.edu.

13 Voice Mail System Training: Managing Your Voice Mail Box: Communications Resources, 10:30 - noon, Communications Building, Tercero Hall Circle, 752-6888.

Understanding Mail Merge in WordPerfect: Staff Development, 1:30 - 4:30 p.m., 40 Mrak; 752-1766.

EndNote Plus (Macintosh): Library Services, 11 a.m. - 1 p.m., Carlson Health Sciences Library; register by calling 752-6204 or by e-mail: jawelsh@ucdavis.edu.

14 Melvyl/Medline: Library Services, 2 p.m. - 4 p.m., Carlson Health Sciences Library; register by calling 752-6204 or by e-mail: jawelsh@ucdavis.edu.

15 Pro-Cite (Windows): Library Services, 10 a.m. - 12 p.m., Carlson Health Sciences Library; register by calling 752-6204 or by e-mail: jawelsh@ucdavis.edu.

19 Voice Mail Training at Research Park: Communications Resources, 10:30 - noon or 1:30 - 3 p.m., 104 University Extension Building, 752-6888.

Introduction to Microsoft Word (two-part class offered Mar. 19 & 21): Staff Development, 8:30 -11:30 a.m., 40 Mrak; 752-1766.

Melvyl/Medline: Library Services, 11 a.m. - 1 p.m., Carlson Health Sciences Library; register by calling 752-6204 or by e-mail: jawelsh@ucdavis.edu.

20 Telephone System Training: Communications Resources, 1:30 - 3 p.m. (single line course); 10:30 - noon (multiline course), Communications Building, Tercero Hall Circle, 752-6888.

Advanced Excel Working Session: Staff Development, 8 a.m. - noon, 40 Mrak; 752-1766.

21 Advanced WordPefect Working Session: Staff Development, 1 - 5 p.m., 40 Mrak; 752-1766.

26 Introduction to Excel (two-part class offered Mar. 26 & 28): Staff Development, 8:30 - 11:30 a.m., 40 Mrak; 752-1766.

Understanding Image Formats: Information Technology and Staff Development, Noon -1 p.m., MU II.

27 Voice Mail System Training: Communications Resources, 1:30 - 3 p.m., Communications Building, Tercero Hall Circle, 752-6888.

Automating FileMaker Pro: Staff Development, 1 - 5 p.m., 40 Mrak; 752-1766.

Melvyl/Medline: Library Services, 1 p.m. - 3 p.m., Carlson Health Sciences Library; register by calling 752-6204 or by e-mail: jawelsh@ucdavis.edu.

Wireless – Shaping the Future

From Page 1

infrastructure will likely evolve into a seamless blend of computing and networking services that involves wireless systems, notebook (laptop) computers, and Personal Digital Assistants (PDA's). Most likely, the "blended" infrastructure will allow you to choose whether or not to plug into a network based on your physical location. You could, for instance, use a Wide Area Network wireless connection to communicate when in the field and then, from your office, plug into the campus network using more conventional wire-based networking means.

As part of the research being carried out for two community projects — the Davis Community Network and Magic WAND (Wide Area Network Davis) _ Information Technology has been evaluating wireless technologies for use both on- and off-campus. The research results are found in a feasibility report available on the World Wide Web (http://www.dcn.davis.ca.us/DCN/Research/), and the feasibility of those findings will be tested in a pilot project that will help the campus plan for the use of wireless technologies.

The pilot project will focus on how wireless technologies apply to the "mobile worker" and the "office of the future." As part of the pilot, Information Technology will develop a demonstration of the faculty office of the future for Odyssey '96, the campus technology showcase scheduled in May. Other demonstrations will focus on how wireless portable docking, wireless LANs, and wireless building-wide networks (e.g., the library), can be utilized by the campus community.

The information gathered during the pilot project will form the basis of a report that will discuss the far-reaching issues surrounding the use of wireless technology — acquisition, installation, configuration, performance, flexibility, and scalability, to name a few.

More Wireless Communications

Web Resources

- The premiere online resource is maintained by Terri Watson at : http://snapple.cs.washington.edu:600/mobile/mobile_www.html
- The DCN-Caltrans Wireless Feasibility Analysis is at: http:/www.dcn.davis.ca.us/DCN/Research/

Magazine Resources

- "The Risks and Rewards of Wireless Data, Part 2," *Point-to-Point*, Gartner Group Review of the Telecommunications Industry, 12/15/95, pp 10 - 16
- "The High Wireless Act," *Network Computing,*, July 1, 1995, pp. 82 - 100
- *Wireless Networks*, *A Journal of mobile communication, computation and information*, co-published by Baltzer Science Publishers and ACM *(Note: highly technical journal).*

Books & Papers

- From U.S. Congress, Office of Technology Assessment , *Wireless Technologies and the National Information Infrastructure*, OTA-ITC-622 (Washington, DC: U.S. Government Printing Office, July 1995)

I.T. TIMES

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